

Agilent Ref: 10030712-1  
United States Application Serial No. 10/722,950

### **RESPONSE**

In view of the following remarks, the Examiner is respectfully requested to withdraw the rejections and allow Claims 1, 16-18, 27-29 and 53-55, as well as new Claims 57-62, the only claims pending and currently under examination in this application.

#### **Formal Matters**

Claims 1-11, 14-18, 25-29, 33, and 40-56 are pending after entry of the amendments set forth herein.

Claims 2-11, 14, 15, 25, 26, 40-52, and 56 have been canceled.

Claims 1, 16-18, 27-29, and 53-33 were examined. Claims 1, 16-18, 27-29, and 53-33 were rejected. No claims were allowed.

Claim 28 has been amended. Support for the amendment can be found in the claims as originally filed and throughout the specification at, for example, page 7, paragraph [0027].

New claims 57-62 have been added. Support for the new claims can be found in the claims as originally filed and throughout the specification at, for example: claim 57: original claims 1 and 16, and page 7, paragraph [0027]; claim 58: original claim 17; claim 59: original claim 18; claim 60: original claim 27; claim 61: original claim 28; and claim 62: original claim 29.

As the above amendments introduce no new matter to the application, their entry is respectfully requested.

#### **Finality of Rejection**

The Applicants respectfully disagree with the finality of the Office Action mailed on November 2, 2005.

As set forth in MPEP 706.07(a), second or any subsequent actions on the merits shall be final except where the examiner introduces a new ground of rejection that is neither (1) necessitated by applicant's amendment of the claims nor (2) based on information submitted in an IDS filed during the period set forth in 37 CFR 1.97(c).

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As noted in the Office Action, all previous rejections and objections under §112, §103, and the judicially created doctrine of obviousness-type double patenting were removed with the amendments filed on April 15, 2005 (Office Action, pages 3-4, items 4, 5, and 7). Therefore, all the rejections of record from the first Office Action were removed.

The present Office Action introduces two new grounds of rejection under §112, and §103. However, none of the rejections are necessitated by amendments to the claims or based on literature cited in an IDS. In fact, the amendments made in the response filed on April 15, 2005, specified the particular substrate structure being treated (as noted in the Office Action, page 3, item 5). Therefore, the rejections of present Office Action could have also been put forth in the first Office Action.

As such, both new grounds of rejections put forth in the current Office Action were neither (1) necessitated by applicant's amendment of the claims nor (2) based on information submitted in an IDS. Accordingly, in view of the remarks made above, the Applicants respectfully request that the finality of the Office Action mailed on November 2, 1005, be removed.

**Election of Species Requirement (Office Action, page 2, item 1)**

The Examiner states that while claims 1, 16-18, 27-29, and 53-55 are directed to the elected species, claims 25 and 26 are directed to the non-elected subspecies (i) of the elected species C. In view of the Examiner's comments, claims 25 and 26 have been canceled.

**Rejection under 35 U.S.C. §112, second paragraph (Office Action, item 3, paragraph 3)**

Claim 28 has been rejected under 35 U.S.C. §112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. In particular, the Office Action asserts that "it is unclear if the seal is a physical entity separate from the gasket, or if the treating is providing the gasket with the ability to form a seal" (Office Action, page 3).

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Claim 28 has been amended for clarity to recite "wherein said treating allows said gasket to form a seal." Therefore, this rejection may be withdrawn.

**Rejection under 35 U.S.C. §103 (pages 4-5, item 8)**

Claims 1, 16-18, 27-29, and 53-55 have been rejected under 35 U.S.C. §103 as being unpatentable for allegedly being rendered obvious by Doellgast (U.S. Pat. No. 5,078,164) in view of Matsuzawa et al., (JP2000-300670 A) or Gilmor et al., (U.S. Patent Pub. No. 2003/207,099). In view of the remarks made herein this rejection is respectfully traversed.

The pending claims are directed to a method for treating a backing element comprising a gasket for forming a sealed array assay chamber when joined to a microarray substrate by either (1) depositing a component on the gasket; (2) extracting a component from the gasket; or (3) surface modifying the gasket to treat the gasket of the microarray structure.

The Office Action indicates that "Doellgast teaches making a gasket or sealing member that is to have a microarray pattern in the gasket, such that it makes an assembly of individual chambers" (Office Action, page 4). However, applicants respectfully disagree. As demonstrated in Fig. 4 of Doellgast, the recited structure only provides a single cavity (item 18) with a plurality of nozzles (items 60). Due to the nozzles (items 60) the cavity is not a sealed array assay chamber, as indicated in the Office Action. In fact, the structure is further described in Doellgast in column 6, lines 1-22. In addition, column 3, lines 16-26 further states that the structure provides for pressure driven fluid streams through the nozzles. Therefore, if the nozzles are for dispensing fluid, then the cavity necessarily cannot be a sealed chamber.

The Office Action further cites Matsuzawa et al., as "provid[ing] a means for making a rubber gaskets useful with syringes" (Office Action, page 5). As noted in the Office Action the reference fail to teach a sealed array assay chamber. In particular, Matsuzawa et al. teaches a syringe. Since a syringe provides for rapid expulsion of a

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fluid from the chamber through the needle, it fails to provide a sealed array assay chamber.

The Office Action also cites Gillmor et al, as "teach[ing] use of polydimethyl siloxane (PDMS) for making a membrane used for sealing to the same substrate [and] forming a microarray (of wells not chambers)" (Office Action, page 5). As noted in the Office Action, the cited reference teaches "wells not chambers" (Office Action, page 5). In addition, on page 2, paragraph [0024], the cited reference notes that the "polymer mixture forms a thin lace-like elastomer". Therefore, the cited reference fails to teach a sealed array assay chamber.

The law is clear that to establish a prima facie case of obviousness, the prior art reference, or references when combined, must teach or suggest all the claim limitations. *In re Royka*, 180 USPQ 580 (CCPA 1974). As noted above, all the cited references fail to teach each and every limitation found in the claims of the present application. In particular, the combination of the references fails to teach a method of treating a backing element comprising a gasket for forming a sealed array assay chamber.

As such, since the cited reference fails to teach each every limitation found in the claims of the present application, the cited reference fails to render the claims of the present application obvious. Therefore, the Applicants respectfully request that this rejection be withdrawn.

#### New claims 57-62

New claims 57-62 are patents for at least the reasons provided above.

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**CONCLUSION**

The Applicants respectfully submit that all of the claims are in condition for allowance, which action is requested. The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078.

Respectfully submitted,

Date: 1.31.06

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